

10 FEB 1976

MEMORANDUM FOR: Chief, Data Processing Research Division, ORD

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ATTENTION : Mr. [REDACTED]

SUBJECT : ORD's Objective to Improve the Effectiveness of Agency Briefings and Presentations

1. Three areas of interest to MPB fall within the bounds of your briefings and presentations objective. First is the possibility of using microfiche as a presentation medium. Microfiche, especially color microfiche, could be used in place of slides, overhead projections, and briefing charts. In order to use microfiche in this way, the present briefing materials would have to be converted to 35mm slides and the slides used as the input to another photographic process to create microfiche. Kodak presently offers this service. After the briefing materials have been converted to microfiche, some type of display equipment would be needed to project the microimages onto a screen. Washington Scientific Industries' Informant microfiche reader has this capability. The Informant, however, does not automatically step from one frame to the next and has no remote operation capability. The briefer must operate the machine by standing next to it. If the Informant could be modified to operate in a way similar to a Kodak slide projector, the microfiche could be placed in this device instead of in a slide projector. The advantages are: (1) microfiche occupy less space and are more easily carried than boxes of slides, (2) microfiche could be duplicated for dissemination to an audience at a relatively low cost. Another element that should be considered in this system (which would be attractive for micropublishing) is a capability to produce good paper copy from a color microfiche.

2. The second area for investigation is the use of computer generated graphics using microfilm as the output medium. Several high quality graphic COM recorders are already available as you know, and your office could concentrate on the use of COM graphics for animated movies in briefings and presentations. COM produced animated movies are already being created in several places throughout the country. To the best of our knowledge the Agency has never tried this inhouse since we never had the hardware necessary to do it. As you know, [REDACTED] is presently investigating this technique for OWI. MPB would like to lend its support to any pursuits along this line since we consider it a very forceful presentation method which could be applied to many analytical problems. Color animation is also possible with a III FR-80. Another possible COM graphics application

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would be to display analog information, especially the type being used in OWI and OEL. We believe it might be possible to use a graphics COM recorder to record on film or paper multi channel analog signals which would provide analysts a superior working aid rather than the present paper format. Presently, the hard copy output plotters in OEL, for instance, permit a maximum display of only 16 channels. We understand that a lot of telemetry material contains at least 64 channels. Therefore, to compare all signals at one time, four reports have to be compared side by side. Quite possibly using a graphics COM device all 64 channels could be displayed together and if on film could be viewed simultaneously on a large screen viewer. Thus, we think that some investigation should be made of this technique as both an analytical tool and as a presentation method.

3. The third and final area is the simultaneous display of micrographic and computer data on the same on-line terminal. Magnavox markets an on-line terminal with a plasma display screen capable of projecting static data from microfiche images and dynamic computer-stored data on the same screen. This display device is presently used for the PLATO education network. ARPA subscribes to PLATO and as you may know has a terminal in Rosslyn for demonstration. Dynamic Information Systems has also developed a multi media terminal. This system, designated RECOL 100, has been installed at the University of Minnesota and the Battelle Memorial Institute. It operates essentially the same as the PLATO terminal except it is a CRT and microfilm images are presented via video onto the screen with dynamic information being displayed as applicable. This is a very versatile presentation technique and we believe there is likely to be an increased use of it as a cost effective and convenient way to store historical data off-line in microfilm with immediate access capability on the same terminal that is used to provide for the display of dynamic computer data.

4. Other areas of interest to MPB which would have significant Agency impact are:

- downgrading of classified information on microfilm
- facsimile transmission of microimages
- on-line COM for instant turnaround
- computer input from microfilm
- updatable microform systems

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 Chief, Micrographics Program Branch

DDA/ISAS/MPB/PRK/LLN:jlb (10 Feb. 76)

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